

REMARKS

Applicant wishes to thank the Examiner for the courtesies and thoughtful treatment accorded Applicant's undersigned representative during the September 2, 2010 telephonic interview. This Supplemental Amendment has been prepared based on the discussions of that interview and it is submitted that the following summarizes those discussions.

During the interview, the invention was discussed with particular reference to Figure 1. Here, it was pointed out that the various elements of the claims can be seen correspond to the features of Figure 1 as follows:

- a) bit connection component = bit connecting circuit 1
- b) correction component = adder 2
- c) latch component = latch 3
- d) quantization component = quantizer 4
- e) inverse quantizing component = inverse quantizer 5
- f) calculation component = component 6
- g) buffer = buffer 8
- h) error diffusion component = diffusion filter 9

As also discussed during the interview, the outputs (i.e., either integer, decimal, or both) can be seen to correspond as follows:

- i) bit connection component: outputs both integer and decimal portions
- ii) correction component: outputs both integer and decimal portions
- iii) latch component: outputs decimal portion only
- iv) quantization component: outputs integer portion only

- v) inverse quantizing component: outputs integer portion only
- vi) calculation component: output integer portion only
- vii) buffer: output integer portion only
- viii) error diffusion component: outputs integer and decimal portions, sign

Thus, as claimed, the bit connection component inputs the decimal portion latched by the latch for the previous corrected image data (pixel) and outputs bit-connected data for the target pixel. The bit-connected data (integer and decimal) is input to the correction component (2), along with a correction value output by the diffusion component. The correction component then outputs corrected image data to be quantized. However, prior to the quantization, the decimal portion of the corrected image data is split-off and latched by the latch so that only the integer portion is utilized in the quantization processing. This reduces the computational complexity and time for the quantization process than would otherwise be needed for quantization of both the integer and decimal portions.

Additionally, less memory (buffer) capacity is used since the buffer stores the integer portion and not the decimal portion. The foregoing, while included in the claims, has nonetheless been made even clearer with regard to the splitting-off of the decimal portion and latching the split-off decimal portion before the quantization process such that only the integer portion is quantized. This feature is not seen to be taught by the cited art.

In this regard, the Examiner gave a preliminary indication that the splitting-off feature may be taught by Katayama, and the Examiner referred to Katayama teaching: “a quantization component that receives an integer portion of the corrected image data without receiving the decimal portion of the corrected image data of the target pixel (e.g., error-to-be-distributed computing means 904 for performing integral operations (with a

decimal portion omitted) to obtain an error to be distributed to neighboring pixels from signals output from the binarizing means 903 and the data adding means 902, column 19, lines 47-50).” It was pointed out to the Examiner that this portion of Katayama is believed to be different from the invention.

In this regard, it was noted that, in the invention, the decimal portion is split off before the quantization process and thus, the quantizer performs quantization based on the integer portion only. The split-off decimal portion is then added to the next pixel as part of the correction process. On the other hand, in Katayama, while an integer portion may be binarized, a decimal portion of the binarized result may be omitted after the binarization when computing the error for error diffusion. Therefore, the process of Katayama is different from the invention. The Examiner seemed to understand the foregoing, and stated that he would need to consult with his supervisor on this point.

No other matters having been raised, the entire application is believed to be in condition for allowance and such action is respectfully requested at the Examiner’s earliest convenience.

Applicant's undersigned attorney may be reached in our Costa Mesa,
California office at (714) 540-8700. All correspondence should continue to be directed to
our below-listed address.

Respectfully submitted,

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